

S.#	Question	Option (A)	Option (B)	Option (C)	Option (D)	Correct Answer
1						
2	A horizontal line in displacement-time graph represents:...	uniform accelerated motion	motion with constant velocity	motion with constant speed	body at rest	D
3	A car travels 30 m toward east, then it takes turn and travels 40 m towards north. It takes 50 seconds. Its average velocity is:....	7/5 m/s	1 m/s	1/5 m/s	5 m/s	B
4	A constant force $F = 2i + 3j + 4k$ is applied on a body what will be the work done to move a body 5 m in z- direction	0	10 J	45 J	20 J	D
5	electron volt is the unit of	voltage	current	energy	power	C
6	What is 1 radian in degrees approximately	57.3 degrees	360 degrees	π degrees	π^2 degrees	A
7	If a wheel of radius r turns through an angle of 30° , then the distance through which any point on its rim moves is?	$\pi/3r$	$\pi/6r$	$\pi/30r$	$\pi/180r$	B
8	The oscillating object overshoots the rest position due to:	restoring force	inertia	gravitational potential energy	elastic potential energy	B
9	Time period of the wave is 1/4 sec. How long does it take to pass 20 complete waves from a point?	5 sec	80 sec	1/80 sec	1/5 sec	A
10	In a periodic wave, the distance between second and fifth crests is 15 cm, what is the wavelength of the wave?	45 cm	5 cm	1/5 cm	1/3 cm	B
11	When an ideal gas of constant mass is heated in a container of fixed volume. What is the reason for the increase in pressure of the gas?	number of molecules per unit volume increases	molecules occupy greater volume of the container	average force per impact at the container wall increases	molecules collide with each other with greater force	C
12	Some ice, at its melting point, is added to m kg of water at initial temperature 290 K. If c is the specific heat capacity of water and L is latent heat of fusion of ice. Ice melts completely. Final temperature of the water is 273 K. What is the minimum mass of ice that is required?	$\frac{17mc}{L}$	$\frac{L}{17mc}$	$\frac{17m}{Lc}$	$\frac{290m}{Lc}$	D
13	An ideal gas of N molecules are enclosed in a container at a constant pressure p . The graph between volume of gas and its absolute temperature is a straight line. What is the gradient of the graph?	$\frac{NR}{p}$	$NR P$	$\frac{Nk}{p}$	Nkp	C
14	If two point charges of charge q_1 and q_2 are placed at distance d . The force between them is proportional to:...	$q_1 + q_2$	$q_1 - q_2$	$\frac{q_1}{q_2}$	$q_1 * q_2$	D
15	An charge is moving with velocity v , it enters a uniform magnetic field B . The direction of v is perpendicular to B . What is the path of the charge particle inside the magnetic field?	parabolic	circular	parallel to v	parallel to E	B
16	Ohm's Law is applicable only when temperature remains	changing	absolute zero	constant	None of these	C
17	Resistivity of a conductor depends upon	temperature	length	cross sectional area	None of these	A
18	Internal resistance of a battery is _____ ohm, if, $E=10V$, $V_t=9V$, $I=1A$	1	0.1	0.01	None of these	A
19	$\cos \theta = \Phi/$	BA	A	B	B^2	A
20	An electron is moving along the line of force in magnetic field B with velocity u , then maximum force acting on the charge is given by	Bue	Bq/u	Bu/q	0	D
21	Face of coil having clockwise current	behaves like north pole	behaves like south pole	becomes magnet of varying poles	does not behaves like magnet	B
22	If we make the magnetic field stronger, the value of induced current is	Decreased	Increased	Vanished	Kept constant	B
23	The principle behind the working of cathode ray oscilloscope is	oscillation	half wave rectification	full wave rectification	none of these	B
24	If a half wave rectifier is used to convert 50Hz AC into DC, then the number of pulses present in rectifier voltage is	25	50	100	75	B
25	Charge of photon is	0	positive	negative	positive/negative	A
26	The uncertainty in momentum and position is due to its	property of matter and radiation	two dimensional motion	extreme velocities	small size	A
27	Energy of the 4th orbit in hydrogen atom is	-2.51 eV	-3.50 eV	-13.6 eV	-0.85 eV	B
28	If the ionization energy of hydrogen atom is 13.6 eV, its ionization potential will be	13.6 eV	136.0 eV	3.4 eV	none of these	A
29	What is the unit of decay constant	second	minute	hour	(sec) ⁻¹	D
30	what is the maximum electron energy in neutron beta decay	783 eV	783 KeV	783 GeV	783 TeV	B
31	The half life of U-238 against alpha decay is 4.5×10^9 years, find the activity of 1 kg of U-238	2.4×10^{-4} Ci	3.34×10^{-4} Ci	4.34×10^{-4} Ci	2.4×10^{-5} Ci	B